REMARKS:

Claims 10, 13, 16, and 17 are amended herein. Claims 1-17 will be pending upon entry of the amendment.

Claims 13, 16, and 17 are amended herein to improve the form of the claims and not for reasons relating to patentability thereof.

The following remarks are responsive to the Office action dated June 24, 2004.

Response to Rejection of Claims Under 35 U.S.C §112

Claim 10 as amended is submitted to satisfy all of the requirements of 35 USC §112.

Response to Rejection of Claims Under 35 USC §103

Claim 1

Claim 1 is directed to apparatus for making laminated pads, each pad comprising a body laminated with at least a first cover layer. The apparatus comprises:

a) a first cutting roll at a first cutting station for cutting a fiber web as it is fed through a first cutting nip to form individual bodies in the web arranged in predetermined positions relative to one another;

b) a sealing roll at a sealing station defining a sealing nip, wherein the sealing roll receives said at least first cover layer from a cover web feed apparatus for lamination with said bodies to form a laminated web adapted to pass through said sealing nip for sealing of the laminated web by said sealing roll;

c) said first cutting roll and said sealing roll having axes of rotation lying in a first plane and having outer surfaces spaced from one another a distance in said first plane;

d) a first vacuum transfer cylinder rotatable for conveying the bodies from the first cutting station toward the sealing station while maintaining the bodies in their predetermined positions relative to one another, said first vacuum transfer cylinder having an axis of rotation spaced from said first plane and having a diameter greater than said distance between said first cutting roll and said sealing roll;

e) said first vacuum transfer cylinder and said first cutting roll being spaced apart to define a first transfer nip for transfer of the bodies from the first cutting roll to the first vacuum transfer cylinder, and said first vacuum transfer cylinder and said sealing roll being spaced apart to define a second transfer nip for transfer of the bodies from the first vacuum transfer cylinder to the sealing roll; and

f) an adjustment mechanism for varying the spacing between the axis of rotation of the first vacuum transfer cylinder and said first plane thereby to adjust the spacing at the first and second transfer nips.

Claim 1 is submitted to be patentable over the references of record, and in particular U.S. Patent No. 6,527,902 (Rajala) in view of U.S. Patent No. 3,784,187 (Takayanagi et al.) as cited in the Office action, because whether considered alone or in combination the references fail to show or suggest an adjustment mechanism for varying the spacing between the axis of rotation of a first vacuum transfer cylinder and a first

plane thereby to adjust the spacing at first and second transfer nips.

Rajala discloses a process and apparatus for cutting discrete components of a multicomponent article and depositing the discrete components with registration on a moving web of material. With particular reference to Figure 4 of Rajala, the apparatus disclosed by Rajala includes a die cutting apparatus 300 comprising an anvil roll 302 and die cut roll 304 which cuts workpieces from a web 202 of material. The workpieces are conveyed by the die cut roll 304 to a nip Y at which the workpieces are transferred to a speed-matching roll 125. The speed-matching roll 125 applies a vacuum to the workpieces to retain the workpieces thereon. The speed-matching roll 125 forms another nip with a second speed-matching roll 150. As the workpieces enter this nip, the workpieces are vacuum transferred onto the second speed-matching roll in stacked registration with respective workpieces cut from another web 212 and carried by the second speed-matching roll.

The stacked workpieces are carried on the second speed-matching roll to a moving web 222 having adhesive thereon and conveyed by a conveyor 106. The stacked workpieces are suctioned off of the second speed-matching roll 150 onto the moving web 222 to adhere the workpieces to the moving web.

As noted in the Office action, Rajala fails to show or suggest the adjusting mechanism recited in Claim 1. In fact, Rajala fail to show or suggest any adjusting mechanism whatsoever. Nor does Rajala provide any suggestion or motivation for adjusting the spacing between a nip defined in part by the first speed-matching roll, i.e., the nip between the first speed-matching roll 125 and the cutting roll 304 and

the nip between the speed-matching roll 125 and the second speed-matching roll 150.

Rajala also fails to show or suggest a vacuum transfer cylinder having a diameter greater than the distance between the first cutting roll and the sealing roll. Assuming for the sake of argument that the second speed-matching roll 150 of Rajala can be characterized as a sealing roll as maintained in the Office action (and applicants disagree with such a characterization), it is clearly shown in Figs. 1, 4, 5, and 8 that the first speed-matching roll 125 is located between the die cut roll 304 and the second speed-matching roll 150 in the plane defined by the rotation axes of the roll 304 and the roll 150. Thus, the diameter of the first speed-matching roll 125 has to be less than the distance between die cut roll 304 and the second speed-matching roll 150. Accordingly, Rajala also does not teach or suggest a vacuum transfer cylinder having a diameter greater than the distance between the first cutting roll and the sealing roll as recited in claim 1.

Takayanagi et al. disclose a folding apparatus for use in a bookbinding process having two modes of operation. In one mode, the folding apparatus is adapted to fold 8-page sections (Fig. 3-4) and, in the other mode, 16-page sections (Figs. 1-2). As shown in Figs. 2 and 3, a web is directed from a rotary press (not shown) through either one or two triangular formers 1, 2 to fold the web a desired number of times depending on the mode of operating being employed. The web is then directed to a nip formed between a first serrated cutter 4 and a folding cylinder 5 where it is cut by a serration 11 located on the first serrated cutter 4. In the mode adapted to fold 8-page sections, the web is carried by the folding cylinder 5 to

another nip formed by a second serrated cutter 10 where it is cut by a second serration 11 positioned on the second serrated cutter. As shown in Figs. 3-4, half of the 8-page sections are transferred from the second serrated cutter 10 to conveyor 18. The other half of the 8-page sections are transferred from the second serrated cutter 10 to a gripping cylinder 16 and then to conveyor 19. When forming 16-page sections, as shown in Figs. 1-2, the web is transferred by the folding cylinder 5 from the first serrated cutter 4 directly to gripping cylinder 16 thereby bypassing the second serrated cutter 10 which is retracted to an inoperable position. The web is further cut and folded to form the 16-page sections, which are transferred by conveyor 19.

The second serrated cutter 10 is supported by pressure-fluid cylinder 14, which is operable to move the second serrated cutter 10 into engagement with the folding cylinder 5 when the apparatus is used to fold 8-page sections and out of engagement when the apparatus is used to fold 16-page sections since it is not needed.

The Office action takes the position that it would have been obvious to include the teachings of Takayanagi et al. to Rajala to vary the spacing between first and second nips as recited in claim 1. Applicants respectfully disagree.

To establish obviousness, every claim requirement must be taught or suggested by the prior art. In re Royka, 180 U.S.P.Q. 580, 583 (C.C.P.A. 1974). Notably, the fluid cylinder 14 of Takayanagi et al. is used to vary the size of only one nip, i.e., the nip between the second serrated cutter 10 and the folding cylinder 5. There is no disclosure or even a suggestion by Takayanagi et al. to use the fluid cylinder 14 to

also vary the size of the nip between the folding cylinder 5 and the first serrated cutter 4. Since Rajala and Takayanagi et al. both fail to show or suggest an adjustment mechanism to adjust the spacing at first and second transfer nips, a combination of these references would similarly fail to show or suggest such a feature. Rather, at most, one skilled in the art would be motivated by Takayanagi et al. to modify Rajala to adjust the second speed-matching roll 150 to vary the nip between the first and second speed-matching rolls 125, 150. However, this would still fail to meet the recitation of the adjustment mechanism of claim 1 which adjusts first and second nips.

Furthermore, there is no disclosure found in either Rajala or Takayanagi et al. that would motivate one skilled in the art to modify the apparatus for making the laminated pads disclosed in Rajala to have an adjustment mechanism as taught by Takayanagi et al. Obviousness can only be established by modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references or in the knowledge generally available to one of ordinary skill in the art. MPEP ' 2143.01 citing In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000).

As mentioned above, the pressure fluid cylinder 14 disclosed by Takayanagi et al. is operable to move the second serrated cutter into and out of an operable position to accommodate two modes of operation, e.g., one being a mode in which the adjusted element, the second serrated cutter, is not even used. Thus, modifying Rajala in accordance with such a teaching would require the second speed-matching roll 150 to be

adjusted to a position in which the second speed-matching roll is bypassed whereby workpieces on the first speed-matching roll 125 bypass the second speed-matching roll and are transferred directly to the web 222. Clearly this would violate the express teachings of Rajala.

Thus, one skilled in the art would be not be motivated to modify Rajala to incorporate the adjustment mechanism teachings of Takayanagi et al.

For these reasons, claim 1 is submitted to be nonobvious and patentable over the references of record.

Claims 2-10 depend directly or indirectly from claim 1 and are submitted to be patentable over the references of record for the same reasons as claim 1.

Claim 11

Claim 11 is directed to a method of adjusting pad-making apparatus comprising:

a) mounting a first cutting roll at a first cutting station for cutting a fiber web as it is fed through a first cutting nip to form individual bodies in the web arranged in predetermined positions relative to one another;

b) mounting a sealing roll at a sealing station defining a sealing nip, the sealing roll being adapted to receive at least a first cover web from a cover web feed apparatus for lamination with said bodies to form a laminated web adapted to pass through said sealing nip for sealing of the laminated web by said sealing roll;

c) said first cutting roll and said sealing roll, as mounted, having axes of rotation lying in a first plane and

having outer surfaces spaced from one another a distance in said first plane;

d) mounting a first vacuum transfer cylinder having a diameter greater than said distance between said first cutting roll and said sealing roll in a position wherein an axis of rotation of the cylinder is spaced from said first plane and the cylinder is spaced from the first cutting roll and said sealing roll to define first and second transfer nips, respectively; and

e) varying the spacing between the axis of rotation of the first vacuum transfer cylinder and said first plane thereby to adjust the spacing at the first and second transfer nips.

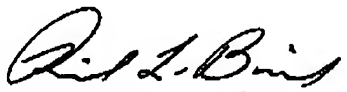
Claim 11 is submitted to be patentable over the references of record, and in particular, Rajala and Takayanagi et al., for substantially the same reasons discussed above in connection with claim 1. That is, whether considered alone or in combination the references fail to show or suggest the step of varying the spacing between the axis of rotation of the first vacuum transfer cylinder and a first plane thereby to adjust the spacing at the first and second transfer nips.

Claims 12-17 depend directly or indirectly from claim 11 and are submitted to be patentable over the references of record for the same reasons as claim 11.

Conclusion

In view of the foregoing, favorable consideration and allowance of claims 1-17 as now presented is respectfully requested. The Commissioner is hereby authorized to charge any fee deficiency in connection with this Amendment A to Deposit Account Number 19-1345 in the name of Senniger Powers.

Respectfully submitted,



Richard L. Bridge, Reg. No. 40.529
SENNIGER POWERS
One Metropolitan Square, 16th Floor
St. Louis, Missouri 63102
(314) 231-5400

RLB/PEB/tmg
VIA FACSIMILE: 703-872-9306